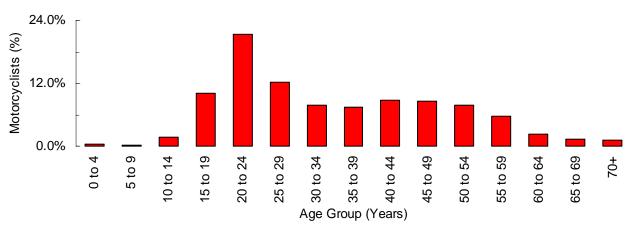
# Motorcycles 2005

## MOTORCYCLES

#### Did you know that in 2005. . .

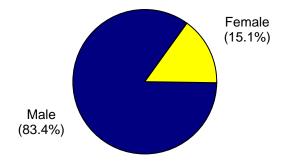
- There were 969 total motorcycle crashes in Utah, resulting in 871 injured motorcyclists and 23 motorcyclist fatalities.
- Compared to 2004, there was a 31% decrease in the rate of motorcyclists killed in crashes, and a 3% decrease in the rate of motorcyclists injured in crashes.
- Nearly all of the motorcycle crashes resulted in an injury or death (87.9%) compared to 36.0% of all motor vehicle crashes.
- Motorcyclists were 12 times more likely to be killed in a crash than other crash occupants.

#### Age of Motorcyclists (Driver and Passenger) Involved in Crashes (Utah 2005)



- Approximately one-half (46.1%) of the motorcyclists involved in crashes were under the age of 30 years.
- Motorcyclists aged 20 to 24 years were involved in the highest percentage of crashes (21.4%).

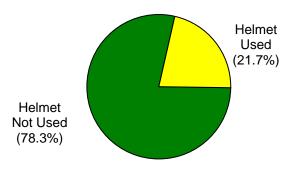
## Gender of Motorcyclists Involved in Crashes (Utah 2005)



NOTE: Gender was missing for 1.5% of motorcyclists.

- Most motorcyclists involved in crashes were male (83.4%).
- The high percentage of male motorcyclists involved in crashes does not necessarily indicate that male motorcyclists are at greater risk for a crash, but may reflect the higher proportion of motorcycle users who are male.

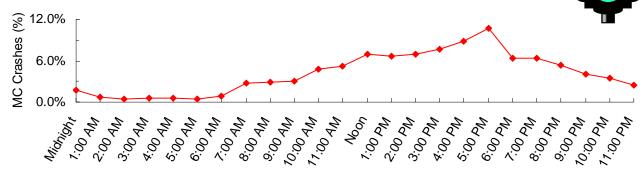
#### Helmet Use of Motorcyclists Killed in a Crash (Utah 2005)



- The majority of the motorcyclists killed in a crash were not wearing a helmet (78.3%).
- Overall, only 38.6% of motorcycle drivers and passengers involved in crashes wore a helmet.
- Utah law states that anyone under the age of 18 years riding a motorcycle, either as the driver or as a passenger, must wear a helmet approved by the Department of Public Safety.

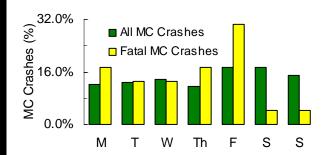
## **Motorcycles**

#### **Time of Day Motorcycle Crashes Occurred (Utah 2005)**



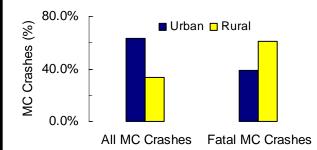
The highest percentage of motorcycle crashes occurred between Noon and 5:00 pm.

## Motorcycle Crashes by Day of Week (Utah 2005)



- The highest percentage of all motorcycle crashes occurred on Friday (17.4%) and Saturday (17.4%).
- Fatal motorcycle crashes occurred most frequently on Friday (30.4%).

#### Urban/Rural Location of Motorcycle Crashes (Utah 2005)



- The majority of all motorcycle crashes occurred in urban areas (63.0%).
- The largest percentage of fatal motorcycle crashes occurred in rural areas (60.9%).
- Motorcycle crashes in rural areas were 3 times more likely to result in a fatality than motorcycle crashes in urban areas.

#### **Leading Motorcycle Crash Violations\* (Utah 2005)**

- 1. Following Too Close (9.5%)
- 2. Driving Under the Influence (8.3%)
- 3. Improper Lookout (6.2%)
- 4. Speeding (6.2%)
- 5. Reckless Driving (6.2%)

Approximately one-quarter (25.1%) of the motorcycle drivers involved in crashes received a citation.

\*Does not include "other moving violations" and "other non-moving violations".

#### **Motorcycle Crash Clock (Utah 2005)**



#### **Alcohol and Other Drug Involvement**



- Of the 25 motorcycle drivers involved in fatal crashes in 2005, 2 were impaired by alcohol or other drugs (8.0%).
- This compares to 16.7% of motorcycle drivers involved in fatal crashes in 2004 that were impaired.

### **Section 6: Motorcycles**

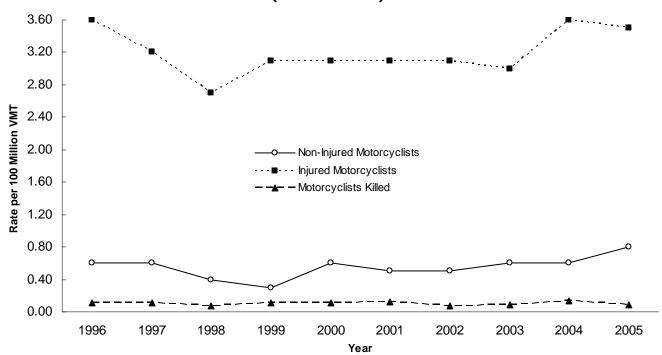
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#### **Trends**

#### **Motorcyclists Involved in Crashes 1996-2005**

			Motorcy	/clists (Driv	er and Pa	assenger)				
		Non-Injured	Persons	Injured P	ersons	Persons	Killed	Total Persons		
		Non-Injured	Rate per	Injured Rate per		Motorcyclists	Rate per	All	Rate per	
	Vehicle Miles	Motorcyclists	100 Million	Motorcyclists	100 Million	Killed	100 Million	Motorcyclists	100 Million	
Year	Traveled (VMT	#	VMT	#	VMT	#	VMT	#	VMT	
1996	19,433,341,748	112	0.6	698	3.6	21	0.11	831	4.3	
1997	20,407,590,239	120	0.6	652	3.2	22	0.11	794	3.9	
1998	21,236,980,216	93	0.4	584	2.7	14	0.07	691	3.3	
1999	21,867,355,694	76	0.3	671	3.1	23	0.11	770	3.5	
2000	22,517,131,427	124	0.6	694	3.1	24	0.11	842	3.7	
2001	23,398,734,621	124	0.5	733	3.1	28	0.12	885	3.8	
2002	24,438,992,554	130	0.5	755	3.1	18	0.07	903	3.7	
2003	23,963,242,376	134	0.6	730	3.0	22	0.09	886	3.7	
2004	24,624,791,795	149	0.6	877	3.6	31	0.13	1,057	4.3	
2005	25,129,538,952	192	0.8	871	3.5	23	0.09	1,086	4.3	
Total	227,017,699,622	1,254	0.6	7,265	3.2	226	0.10	8,745	3.9	

#### Motorcyclists Involved in Crashes (Driver and Passenger) (Utah 1996-2005)



- The above table and graph show the trends in motorcyclists (driver and passenger) involved in crashes from 1996 to 2005.
- Overall, the rate of motorcyclists involved in crashes decreased from 1996 to 1998, with the lowest rate of motorcyclists involved in crashes occurring in 1998 (3.3). This has been followed by an upward trend.
- In fact, in 2005 the rate of total motorcyclists involved in crashes remains at an all-time high (4.3).
- While the number of motorcyclists killed in crashes varies from year to year, the small number of fatalities makes it difficult to compare yearly increases and decreases.

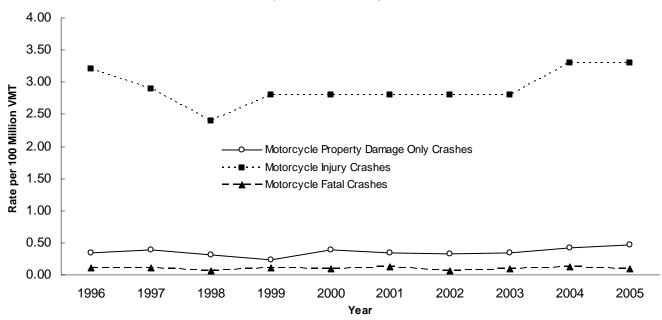
#### **Trends**

#### **Motorcycle Crashes 1996-2005**

			Мо	torcycle (	Crashes					
		<b>Property Dama</b>	ge Only (PDO)	Inju	ıry	Fa	tal	To	Total	
		Motorcycle	Rate	Motorcycle	Rate	Motorcycle	Rate	All	Rate	
		PDO	per	Injury	per	Fatal	per	Motorcycle	per	
	Vehicle Miles	Crashes	100 Million	Crashes	100 Million	Crashes	100 Million	Crashes	100 Million	
Year	Traveled (VMT)	#	VMT	#	VMT	#	VMT	#	VMT	
1996	19,433,341,748	66	0.34	626	3.2	21	0.11	713	3.7	
1997	20,407,590,239	80	0.39	594	2.9	23	0.11	697	3.4	
1998	21,236,980,216	66	0.31	509	2.4	14	0.07	589	2.8	
1999	21,867,355,694	52	0.24	602	2.8	24	0.11	678	3.1	
2000	22,517,131,427	88	0.39	624	2.8	22	0.10	734	3.3	
2001	23,398,734,621	82	0.35	648	2.8	28	0.12	758	3.2	
2002	24,438,992,554	81	0.33	689	2.8	18	0.07	788	3.2	
2003	23,963,242,376	84	0.35	661	2.8	21	0.09	766	3.2	
2004	24,624,791,795	104	0.42	805	3.3	29	0.12	938	3.8	
2005	25,129,538,952	117	0.47	829	3.3	23	0.09	969	3.9	
Total	227,017,699,622	820	0.36	6,587	2.9	223	0.10	7,630	3.4	

NOTE: A crash may result in multiple injuries and/or fatalities.

#### Motorcycle Crashes (Utah 1996-2005)



- The above table and graph show the trends in motorcycle crashes from 1996 to 2005.
- Overall, the rate of motorcycle crashes decreased from 1996 to 1998, with the lowest rate of motorcycle crashes occurring in 1998 (2.8). This has been followed by an upward trend.
- In fact, in 2005 the rate of total motorcycle crashes hit a new all-time high (3.9).
- While fatal motorcycle crashes vary from year to year, the small number of fatal crashes makes it difficult to compare yearly increases and decreases.

#### **Counties**

#### **Motorcyclists Involved in Crashes by County (Utah 2005)**

			M	lotorcyc	clists (D	river and	Passer	nger)				
	Non-In	jured Per	rsons	ln	jured Per	sons	Р	ersons K	illed	T	otal Pers	ons
	Non-Injured	Rate	Rate	Injured	Rate	Rate	Motor-	Rate	Rate	All	Rate	Rate
	Motor-	per 100	per	Motor-	per 100	per	cyclists	per 100	per	Motor-	per 100	per
	cyclists	Million	10,000	cyclists	Million	10,000	Killed	Million	10,000	cyclists	Million	10,000
County	#	VMT	Population	#	VMT	Population	#	VMT	Population	#	VMT	Population
Beaver	0	0.0	0.0	5	2.0	7.9	0	0.0	0.0	5	2.0	7.9
Box Elder	1	0.1	0.2	10	1.1	2.2	0	0.0	0.0	11	1.2	2.4
Cache	9	1.0	0.9	22	2.4	2.1	0	0.0	0.0	31	3.4	3.0
Carbon	5	1.7	2.6	7	2.4	3.6	1	0.3	0.5	13	4.5	6.7
Daggett	0	0.0	0.0	6	17.6	62.3	0	0.0	0.0	6	17.6	62.3
Davis	15	0.6	0.5	58	2.5	2.1	0	0.0	0.0	73	3.1	2.6
Duchesne	0	0.0	0.0	9	4.3	5.9	0	0.0	0.0	9	4.3	5.9
Emery	2	0.5	1.9	7	1.9	6.7	1	0.3	1.0	10	2.7	9.5
Garfield	1	0.8	2.1	10	8.4	21.3	0	0.0	0.0	11	9.2	23.4
Grand	2	0.8	2.3	12	4.5	13.6	0	0.0	0.0	14	5.3	15.9
Iron	5	0.8	1.2	15	2.4	3.6	0	0.0	0.0	20	3.1	4.8
Juab	0	0.0	0.0	1	0.3	1.1	2	0.5	2.2	3	0.8	3.3
Kane	1	0.8	1.6	11	8.3	17.7	0	0.0	0.0	12	9.1	19.3
Millard	1	0.2	0.8	5	1.1	3.8	1	0.2	0.8	7	1.6	5.3
Morgan	1	8.0	1.2	6	4.6	7.0	0	0.0	0.0	7	5.3	8.2
Piute	0	0.0	0.0	1	3.9	7.3	0	0.0	0.0	1	3.9	7.3
Rich	0	0.0	0.0	6	11.4	29.1	0	0.0	0.0	6	11.4	29.1
Salt Lake	68	8.0	0.7	324	4.0	3.3	7	0.1	0.1	399	4.9	4.1
San Juan	0	0.0	0.0	9	3.2	6.2	0	0.0	0.0	9	3.2	6.2
Sanpete	0	0.0	0.0	3	1.2	1.2	0	0.0	0.0	3	1.2	1.2
Sevier	0	0.0	0.0	2	0.5	1.0	1	0.2	0.5	3	0.7	1.5
Summit	6	0.9	1.7	12	1.7	3.3	2	0.3	0.6	20	2.8	5.5
Tooele	7	8.0	1.3	13	1.5	2.5	0	0.0	0.0	20	2.3	3.8
Uintah	7	2.1	2.6	10	3.0	3.7	0	0.0	0.0	17	5.1	6.3
Utah	29	0.8	0.6	136	3.7	3.0	4	0.1	0.1	169	4.7	3.7
Wasatch	0	0.0	0.0	4	1.4	2.0	0	0.0	0.0	4	1.4	2.0
Washington	10	0.9	0.8	80	7.0	6.3	1	0.1	0.1	91	8.0	7.2
Wayne	0	0.0	0.0	12	31.1	47.9	1	2.6	4.0	13	33.7	51.9
Weber	22	1.4	1.0	75	4.9	3.5	2	0.1	0.1	99	6.4	4.6
Statewide	192	0.8	0.8	871	3.5	3.4	23	0.1	0.1	1,086	4.3	4.3

- Two different rates are given in the above table; one based on vehicle miles traveled in the county, and another based on the population of the county.
- Rate per 100 million vehicle miles traveled:
  - Wayne (31.1), Daggett (17.6) and Rich (11.4) had the highest rates of motorcyclists injured in crashes per 100 million vehicle miles traveled.
  - Wayne (2.6) and Juab (0.5) had the highest rates of motorcyclists killed in crashes per 100 million vehicle miles traveled.
- Rate per 10,000 population:
  - Daggett (62.3), Wayne (47.9) and Rich (29.1) had the highest rates of motorcyclists injured in crashes per 10,000 population.
  - Wayne (4.0), Juab (2.2) and Emery (1.0) had the highest rates of motorcyclists killed in crashes per 10,000 population.

#### Counties

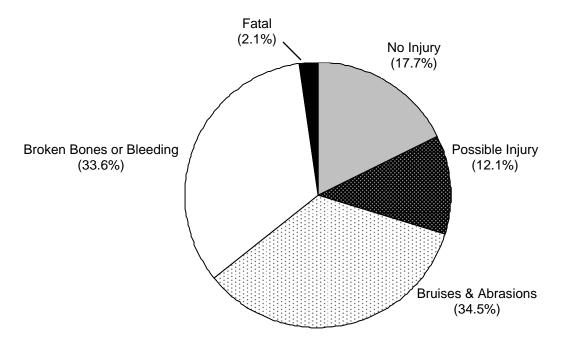
#### **Motorcycle Crashes by County (Utah 2005)**

					Motor	cycle Cra	shes					
	Property D	Damage C	nly (PDO)		Injury			Fatal			Total	
	Motorcycle	Rate	Rate	Motorcycle	Rate	Rate	Motorcycle	Rate	Rate	All	Rate	Rate
	PDO	per 100	per	Injury	per 100	per	Fatal	per 100	per	Motorcycle	per 100	per
	Crashes	Million	10,000	Crashes	Million	10,000	Crashes	Million	10,000	Crashes	Million	10,000
County	#	VMT	Population	#	VMT	Population	#	VMT	Population	#	VMT	Population
Beaver	0	0.0	0.0	5	2.0	7.9	0	0.0	0.0	5	2.0	7.9
Box Elder	1	0.1	0.2	10	1.1	2.2	0	0.0	0.0	11	1.2	2.4
Cache	7	8.0	0.7	20	2.2	1.9	0	0.0	0.0	27	3.0	2.6
Carbon	3	1.0	1.6	6	2.1	3.1	1	0.3	0.5	10	3.5	5.2
Daggett	0	0.0	0.0	6	17.6	62.3	0	0.0	0.0	6	17.6	62.3
Davis	7	0.3	0.3	53	2.3	1.9	0	0.0	0.0	60	2.6	2.2
Duchesne	0	0.0	0.0	7	3.4	4.6	0	0.0	0.0	7	3.4	4.6
Emery	1	0.3	1.0	7	1.9	6.7	1	0.3	1.0	9	2.5	8.6
Garfield	0	0.0	0.0	9	7.6	19.1	0	0.0	0.0	9	7.6	19.1
Grand	2	0.8	2.3	11	4.1	12.5	0	0.0	0.0	13	4.9	14.7
Iron	3	0.5	0.7	14	2.2	3.4	0	0.0	0.0	17	2.7	4.1
Juab	0	0.0	0.0	1	0.3	1.1	1	0.3	1.1	2	0.5	2.2
Kane	0	0.0	0.0	9	6.8	14.5	0	0.0	0.0	9	6.8	14.5
Millard	1	0.2	0.8	5	1.1	3.8	1	0.2	0.8	7	1.6	5.3
Morgan	1	0.8	1.2	6	4.6	7.0	0	0.0	0.0	7	5.3	8.2
Piute	0	0.0	0.0	1	3.9	7.3	0	0.0	0.0	1	3.9	7.3
Rich	0	0.0	0.0	5	9.5	24.2	0	0.0	0.0	5	9.5	24.2
Salt Lake	48	0.6	0.5	317	3.9	3.2	8	0.1	0.1	373	4.6	3.8
San Juan	0	0.0	0.0	9	3.2	6.2	0	0.0	0.0	9	3.2	6.2
Sanpete	0	0.0	0.0	2	0.8	0.8	0	0.0	0.0	2	0.8	0.8
Sevier	0	0.0	0.0	2	0.5	1.0	1	0.2	0.5	3	0.7	1.5
Summit	4	0.6	1.1	11	1.6	3.0	2	0.3	0.6	17	2.4	4.7
Tooele	4	0.5	0.8	14	1.6	2.7	0	0.0	0.0	18	2.0	3.5
Uintah	3	0.9	1.1	9	2.7	3.3	0	0.0	0.0	12	3.6	4.5
Utah	14	0.4	0.3	130	3.6	2.9	4	0.1	0.1	148	4.1	3.2
Wasatch	0	0.0	0.0	4	1.4	2.0	0	0.0	0.0	4	1.4	2.0
Washington	7	0.6	0.6	75	6.6	5.9	1	0.1	0.1	83	7.3	6.5
Wayne	0	0.0	0.0	11	28.5	43.9	1	2.6	4.0	12	31.1	47.9
Weber	11	0.7	0.5	70	4.5	3.3	2	0.1	0.1	83	5.4	3.9
Statewide	117	0.5	0.5	829	3.3	3.3	23	0.1	0.1	969	3.9	3.8

- Two different rates are given in the above table; one based on vehicle miles traveled in the county, and another based on the population of the county.
- Rate per 100 million vehicle miles traveled:
  - Wayne (28.5), Daggett (17.6) and Rich (9.5) had the highest rates of motorcycle injury crashes per 100 million vehicle miles traveled.
  - Wayne (2.6) had the highest rates of fatal motorcycle crashes per 100 million vehicle miles traveled.
- Rate per 10,000 population:
  - Daggett (62.3), Wayne (43.9) and Rich (24.2) had the highest rates of motorcycle injury crashes per 10,000 population.
  - Wayne (4.0), Juab (1.1) and Emery (1.0) had the highest rates of fatal motorcycle crashes per 10,000 population.

#### **Motorcyclist Characteristics (Driver and Passenger)**

#### Injury Severity of Motorcyclists Involved in Crashes (Utah 2005)



- In the above graph, there were a total of 1,086 motorcyclists involved in crashes.
- The above graph shows that the percentage of motorcyclists sustaining a non-fatal injury (80.2%) was much higher than the percentage of all motor vehicle crash occupants sustaining a non-fatal injury (20.2%).
- A fatal injury was sustained by 2.1% of motorcyclists compared to 0.2% of all motor vehicle crash occupants.
- In fact, motorcyclists were 12 times more likely to be killed in a crash than other motor vehicle crash occupants.

#### Occupant Placement of Motorcyclists Involved in Crashes (Utah 2005)

Motorcyclists (Driver and Passenger)											
	Non-Injured Motorcyclists		Injured Motorcyclists			cyclists led	Total Motorcyclists				
Occupant Placement	#	%	#	%	#	%	#	%			
Driver	153	79.7%	787	90.4%	22	95.7%	962	88.6%			
Passenger	39	20.3%	84	9.6%	1	4.3%	124	11.4%			
Total	192	100.0%	871	100.0%	23	100.0%	1,086	100.0%			

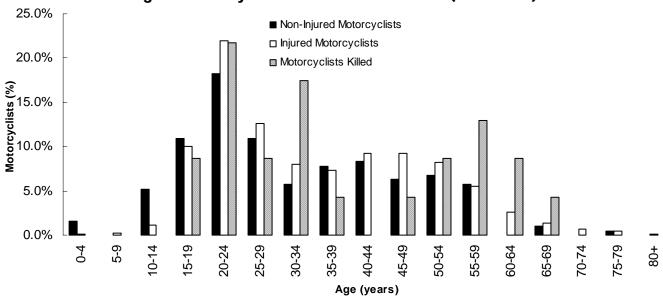
- The above table shows that drivers accounted for the majority of injured motorcyclists (90.4%) and 95.7% of the motorcyclist fatalities.
- In addition, there were 4 pedestrians and 3 bicyclists involved in motorcycle crashes. All of the pedestrians and bicyclists sustained non-fatal injuries.

#### **Motorcyclist Characteristics (Driver and Passenger)**

#### Age of Motorcyclists Involved in Crashes (Utah 2005)

	Mc	otorcyc	lists (I	Driver a	ınd Pa	ssenge	er)	
	Non-li	njured	lnjι	ıred	Motor	cyclists	To	tal
	Motore	cyclists	Motore	cyclists	Killed		Motor	cyclists
Age	#	%	#	%	#	%	#	%
0-4	3	1.6%	1	0.1%	0	0.0%	4	0.4%
5-9	0	0.0%	2	0.2%	0	0.0%	2	0.2%
10-14	10	5.2%	10	1.1%	0	0.0%	20	1.8%
15-19	21	10.9%	87	10.0%	2	8.7%	110	10.1%
20-24	35	18.2%	192	22.0%	5	21.7%	232	21.4%
25-29	21	10.9%	110	12.6%	2	8.7%	133	12.2%
30-34	11	5.7%	70	8.0%	4	17.4%	85	7.8%
35-39	15	7.8%	64	7.3%	1	4.3%	80	7.4%
40-44	16	8.3%	80	9.2%	0	0.0%	96	8.8%
45-49	12	6.3%	80	9.2%	1	4.3%	93	8.6%
50-54	13	6.8%	71	8.2%	2	8.7%	86	7.9%
55-59	11	5.7%	48	5.5%	3	13.0%	62	5.7%
60-64	0	0.0%	23	2.6%	2	8.7%	25	2.3%
65-69	2	1.0%	11	1.3%	1	4.3%	14	1.3%
70-74	0	0.0%	6	0.7%	0	0.0%	6	0.6%
75-79	1	0.5%	4	0.5%	0	0.0%	5	0.5%
80+	0	0.0%	1	0.1%	0	0.0%	1	0.1%
Missing	21	10.9%	11	1.3%	0	0.0%	32	2.9%
Total	192	100.0%	871	100.0%	23	100.0%	1,086	100.0%

#### Age of Motorcyclists Involved in Crashes (Utah 2005)



- Overall, the largest percentage of motorcyclists involved in crashes were aged 20 to 24 years (21.4%). This
  age group also represented the largest percentage of motorcyclists injured in crashes (22.0%).
- The highest percentage of motorcyclist fatalities also occurred in the 20 to 24 year age group (21.7%) and the 30 to 34 year age group (17.4%).

#### **Motorcyclist Characteristics (Driver and Passenger)**

#### **Gender of Motorcyclists Involved in Crashes (Utah 2005)**

	Motorcyclists (Driver and Passenger)												
	Non-l	njured	Inju	ıred	Motore	cyclists	Total						
	Motore	cyclists	Motore	cyclists	Kil	led	Motore	cyclists					
Gender	#	%	#	%	#	%	#	%					
Female	34	17.7%	126	14.5%	4	17.4%	164	15.1%					
Male	144	75.0%	743	85.3%	19	82.6%	906	83.4%					
Missing	14	7.3%	2	0.2%	0	0.0%	16	1.5%					
Total	192	100.0%	871	100.0%	23	100.0%	1,086	100.0%					

 The majority of all motorcyclists (83.4%), injured motorcyclists (85.3%) and motorcyclists killed (82.6%) in crashes were male.

#### Helmet Use of Motorcyclists Involved in Crashes (Utah 2005)

Motorcyclists (Driver and Passenger)											
		njured cyclists	•	ured cyclists		cyclists led	Total Motorcyclists				
Helmet Use	#	%	#	%	#	%	#	%			
Helmet Worn	53	27.6%	361	41.4%	5	21.7%	419	38.6%			
Helmet Not Worn	107	55.7%	234	26.9%	18	78.3%	359	33.1%			
Unknown	32	16.7%	276	31.7%	0	0.0%	308	28.4%			
Total	192	100.0%	871	100.0%	23	100.0%	1,086	100.0%			

NOTE: Nearly one-third of helmet use for injured motorcyclists (31.7%) was reported as "unknown". Thus, interpretations of this information should be made with caution.

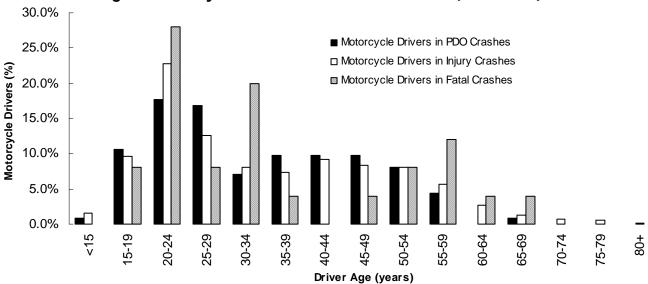
- Only 38.6% of motorcycle drivers and passengers involved in crashes wore a helmet.
- Utah law states that anyone under the age of 18 years riding a motorcycle, either as the driver or as the passenger, must wear a helmet approved by the Department of Public Safety.
- 18 out of the 23 motorcyclists killed in crashes (78.3%) were not wearing a helmet.

#### **Motorcycle Driver Characteristics**

#### **Motorcycle Driver Age (Utah 2005)**

			Motorcy	cle Drive	ers			
	Motorcyc	le Drivers	Motorcycl	e Drivers	Motorcycl	e Drivers	Total Mo	torcycle
	Involved i	n Property	Involv	ed in	Involv	ed in	Drivers Involved	
	Damage Oi	nly Crashes	Injury C	Crashes	Fatal C	rashes	in Cra	shes
Driver Age	# %		#	%	#	%	#	%
<15	1	0.9%	13	1.6%	0	0.0%	14	1.5%
15-19	12	10.6%	79	9.6%	2	8.0%	93	9.7%
20-24	20	17.7%	188	22.8%	7	28.0%	215	22.3%
25-29	19	16.8%	104	12.6%	2	8.0%	125	13.0%
30-34	8	7.1%	67	8.1%	5	20.0%	80	8.3%
35-39	11	9.7%	60	7.3%	1	4.0%	72	7.5%
40-44	11	9.7%	76	9.2%	0	0.0%	87	9.0%
45-49	11	9.7%	69	8.4%	1	4.0%	81	8.4%
50-54	9	8.0%	66	8.0%	2	8.0%	77	8.0%
55-59	5	4.4%	47	5.7%	3	12.0%	55	5.7%
60-64	0	0.0%	22	2.7%	1	4.0%	23	2.4%
65-69	1	0.9%	11	1.3%	1	4.0%	13	1.4%
70-74	0	0.0%	6	0.7%	0	0.0%	6	0.6%
75-79	0	0.0%	5	0.6%	0	0.0%	5	0.5%
80+	0	0.0%	1	0.1%	0	0.0%	1	0.1%
Missing	5	4.4%	10	1.2%	0	0.0%	15	1.6%
Total	113	100.0%	824	100.0%	25	100.0%	962	100.0%

#### Age of Motorcycle Drivers Involved in Crashes (Utah 2005)



- The above table and graph show that approximately one-half (46.5%) of the motorcycle drivers involved in crashes were under the age of 30 years.
- The percentage of drivers involved in injury crashes was highest for those aged 20 to 24 years (22.8%).
- The percentage of drivers involved in fatal crashes was highest for those aged 20 to 24 years (28.0%) and 30 to 34 years (20.0%).

#### **Motorcycle Driver Characteristics**

#### **Motorcycle Driver Gender (Utah 2005)**

		M	lotorcycl	le Driver	'S				
	Motorcycl	e Drivers	Motorcycl	e Drivers	Motorcyc	le Drivers	Total Motorcycle		
	Involved in	n Property	Involv	ed in	Involv	ed in	Drivers Involved		
	Damage Or	nly Crashes	Injury C	Crashes	Fatal C	rashes	in Crashes		
Driver Gender	#	%	#	%	#	%	#	%	
Female	8	7.1%	60	7.3%	3	12.0%	71	7.4%	
Male	102	90.3%	761	92.4%	22	88.0%	885	92.0%	
Missing	3	2.7%	3	0.4%	0	0.0%	6	0.6%	
Total	113	100.0%	824	100.0%	25	100.0%	962	100.0%	

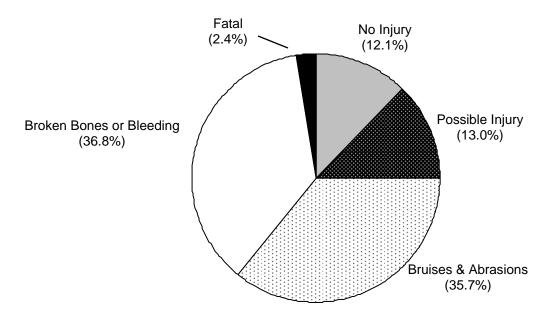
• The majority of motorcycle drivers involved in total crashes (92.0%), injury crashes (92.4%) and fatal crashes (88.0%) were male. This does not necessarily indicate that male motorcycle drivers are at greater risk for a crash, but may reflect a higher proportion of male motorcycle drivers in Utah.

#### Alcohol and Other Drug Involvement of Motorcycle Drivers (Utah 2005)



• Of the 25 motorcycle drivers involved in fatal crashes in 2005, 2 were impaired by alcohol or other drugs (8.0%).

#### **Motorcycle Crash Severity (Utah 2005)**



- In the above graph, there were a total of 969 motorcycle crashes.
- Most motorcycle crashes resulted in a non-fatal injury (85.5%) compared to 35.6% of all motor vehicle crashes.
- The percentage of fatal motorcycle crashes was 2.4%, compared to 0.4% of all motor vehicle crashes.
- In fact, motorcycle crashes were 6 times more likely to be fatal than other motor vehicle crashes.

#### Motorcycle Crashes by Month of Year (Utah 2005)

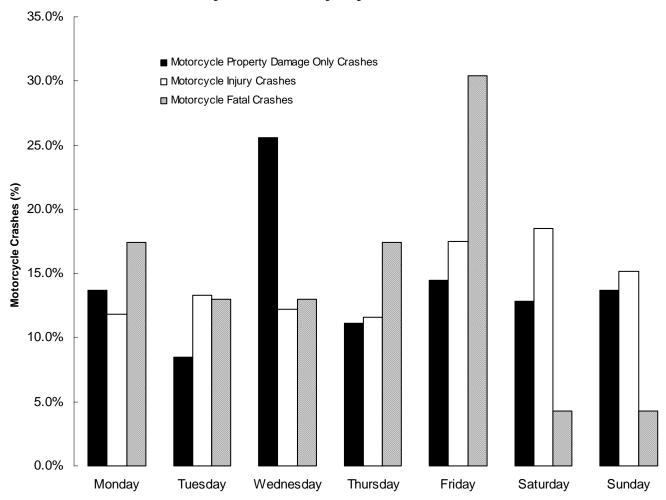
	Motorcycle Crashes												
			operty Damage Only (PDO) Injury		Fatal		Total						
	Days in	Motorcycle	Rate	Motorcycle	Rate	Motorcycle	Rate	All Motorcycle	Rate				
	Month	PDO Crashes	per	Injury Crashes	per	Fatal Crashes	per	Crashes	per				
Month	#	#	Day	#	Day	#	Day	#	Day				
January	31	7	0.2	12	0.4	1	0.0	20	0.6				
February	28	2	0.1	18	0.6	0	0.0	20	0.7				
March	31	8	0.3	27	0.9	1	0.0	36	1.2				
April	30	6	0.2	69	2.3	0	0.0	75	2.5				
May	31	13	0.4	108	3.5	3	0.1	124	4.0				
June	30	9	0.3	106	3.5	4	0.1	119	4.0				
July	31	17	0.5	139	4.5	3	0.1	159	5.1				
August	31	21	0.7	130	4.2	8	0.3	159	5.1				
September	30	12	0.4	113	3.8	1	0.0	126	4.2				
October	31	14	0.5	68	2.2	0	0.0	82	2.6				
November	30	6	0.2	26	0.9	2	0.1	34	1.1				
December	31	2	0.1	13	0.4	0	0.0	15	0.5				
Total	365	117	0.3	829	2.3	23	0.1	969	2.7				

The above table shows May through September had the highest rates per day of total motorcycle crashes and
injury crashes. Very few motorcycle crashes occurred in the winter months, this is likely due to the decrease
of individuals riding motorcycles in the winter.

#### Motorcycle Crashes by Day of Week (Utah 2005)

Motorcycle Crashes										
	<b>Property Damag</b>	ge Only Crashes	Injury	Crashes	Fatal (	Crashes	Total Crashes			
Day of Week	#	%	#	%	#	%	#	%		
Monday	16	13.7%	98	11.8%	4	17.4%	118	12.2%		
Tuesday	10	8.5%	110	13.3%	3	13.0%	123	12.7%		
Wednesday	30	25.6%	101	12.2%	3	13.0%	134	13.8%		
Thursday	13	11.1%	96	11.6%	4	17.4%	113	11.7%		
Friday	17	14.5%	145	17.5%	7	30.4%	169	17.4%		
Saturday	15	12.8%	153	18.5%	1	4.3%	169	17.4%		
Sunday	16	13.7%	126	15.2%	1	4.3%	143	14.8%		
Total	117	100.0%	829	100.0%	23	100.0%	969	100.0%		

#### Motorcycle Crashes by Day of Week (Utah 2005)

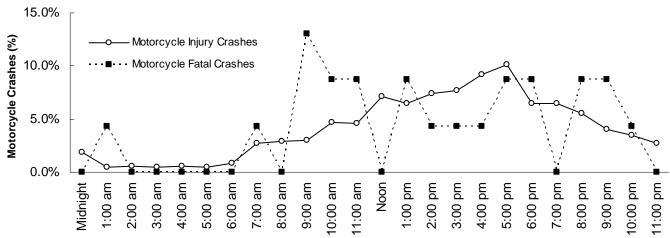


- The above table and graph show that the highest percentage of total motorcycle crashes (17.4%) and motorcycle injury crashes (18.5%) occurred on Saturday.
- Fatal motorcycle crashes occurred most frequently on Friday (30.4%).

#### **Motorcycle Crashes by Hour of Day (Utah 2005)**

Motorcycle Crashes										
	<b>Property Damag</b>	ge Only Crashes	Injury	Crashes	Fatal (	Crashes	Total Crashes			
Hour	#	%	#	%	#	%	#	%		
Midnight	1	0.9%	16	1.9%	0	0.0%	17	1.8%		
1:00 am	2	1.7%	4	0.5%	1	4.3%	7	0.7%		
2:00 am	0	0.0%	5	0.6%	0	0.0%	5	0.5%		
3:00 am	2	1.7%	4	0.5%	0	0.0%	6	0.6%		
4:00 am	1	0.9%	5	0.6%	0	0.0%	6	0.6%		
5:00 am	1	0.9%	4	0.5%	0	0.0%	5	0.5%		
6:00 am	2	1.7%	7	0.8%	0	0.0%	9	0.9%		
7:00 am	4	3.4%	22	2.7%	1	4.3%	27	2.8%		
8:00 am	4	3.4%	24	2.9%	0	0.0%	28	2.9%		
9:00 am	2	1.7%	25	3.0%	3	13.0%	30	3.1%		
10:00 am	5	4.3%	39	4.7%	2	8.7%	46	4.7%		
11:00 am	10	8.5%	38	4.6%	2	8.7%	50	5.2%		
Noon	8	6.8%	59	7.1%	0	0.0%	67	6.9%		
1:00 pm	8	6.8%	54	6.5%	2	8.7%	64	6.6%		
2:00 pm	5	4.3%	61	7.4%	1	4.3%	67	6.9%		
3:00 pm	10	8.5%	64	7.7%	1	4.3%	75	7.7%		
4:00 pm	8	6.8%	76	9.2%	1	4.3%	85	8.8%		
5:00 pm	18	15.4%	84	10.1%	2	8.7%	104	10.7%		
6:00 pm	6	5.1%	54	6.5%	2	8.7%	62	6.4%		
7:00 pm	7	6.0%	54	6.5%	0	0.0%	61	6.3%		
8:00 pm	3	2.6%	46	5.5%	2	8.7%	51	5.3%		
9:00 pm	5	4.3%	33	4.0%	2	8.7%	40	4.1%		
10:00 pm	4	3.4%	29	3.5%	1	4.3%	34	3.5%		
11:00 pm	1	0.9%	22	2.7%	0	0.0%	23	2.4%		
Total	117	100.0%	829	100.0%	23	100.0%	969	100.0%		

#### Motorcycle Crashes by Hour of Day (Utah 2005)



- In 2005, total motorcycle crashes and injury motorcycle crashes followed a similar time pattern, peaking between Noon and 5:00 pm.
- Fatal motorcycle crashes occurred during various times of the day.

#### **Types of Crashes Involving Motorcycles (Utah 2005)**

Motorcycle Crashes										
	<b>Property Damage</b>		lnj	Injury		atal	Total			
	Only C	rashes	Cra	shes	Crashes		Crashes			
Crash Type	#	%	#	%	#	%	#	%		
Two Motor Vehicles	86	73.5%	395	47.6%	11	47.8%	492	50.8%		
Overturned in Roadway	5	4.3%	115	13.9%	1	4.3%	121	12.5%		
Ran Off Roadway - To the Right	9	7.7%	110	13.3%	0	0.0%	119	12.3%		
Other Non-Collision	4	3.4%	63	7.6%	6	26.1%	73	7.5%		
Motor Vehicle and Fixed Object	1	0.9%	43	5.2%	4	17.4%	48	5.0%		
Ran Off Roadway - To the Left	3	2.6%	41	4.9%	0	0.0%	44	4.5%		
Motor Vehicle and Wild Animal	3	2.6%	27	3.3%	1	4.3%	31	3.2%		
Motor Vehicle and Other Object	5	4.3%	15	1.8%	0	0.0%	20	2.1%		
Ran Off Roadway - Through Median	0	0.0%	6	0.7%	0	0.0%	6	0.6%		
Motor Vehicle and Domestic Animal	0	0.0%	5	0.6%	0	0.0%	5	0.5%		
Motor Vehicle and Bicycle	0	0.0%	4	0.5%	0	0.0%	4	0.4%		
Motor Vehicle and Skates, Scooters, Skateboards	1	0.9%	2	0.2%	0	0.0%	3	0.3%		
Motor Vehicle and Pedestrian	0	0.0%	2	0.2%	0	0.0%	2	0.2%		
Motor Vehicle and Train	0	0.0%	1	0.1%	0	0.0%	1	0.1%		
Total	117	100.0%	829	100.0%	23	100.0%	969	100.0%		

- The majority of motorcycle property damage only crashes (73.5%), injury crashes (47.6%) and fatal crashes (47.8%) involved another motor vehicle.
- "Ran off the roadway" (to the right, to the left, or through the median) accounted for another 17.4% of the motorcycle crashes.

#### **Urban/Rural Location of Motorcycle Crashes (Utah 2005)**

Motorcycle Crashes										
	Property Damage		Injury		_	atal	Total			
	Only C	rashes	Crashes		Crashes		Crashes			
Urban/Rural Location	#	%	#	%	#	%	#	%		
Rural Area - Up to 5,000	33	28.2%	279	33.7%	14	60.9%	326	33.6%		
Small Urban - 5,000 to 49,999	10	8.5%	65	7.8%	0	0.0%	75	7.7%		
Moderate Urban - 50,000 to 199,999	4	3.4%	10	1.2%	0	0.0%	14	1.4%		
Large Urban - 200,000 or More	68	58.1%	445	53.7%	9	39.1%	522	53.9%		
Missing	2	1.7%	30	3.6%	0	0.0%	32	3.3%		
Total	117	100.0%	829	100.0%	23	100.0%	969	100.0%		

- While the majority of total motorcycle crashes (63.0%) as well as the majority of motorcycle injury crashes (62.7%) occurred in small, moderate and large urban areas, the majority of fatal motorcycle crashes occurred in rural areas (60.9%).
- In fact, motorcycle crashes occurring in rural areas were 3 times more likely to result in a fatality than motorcycle crashes in urban areas.

#### **Motorcycle Crash Violations (Utah 2005)**

Violations (Motorcycle Drivers)										
	Motor	cycle	Motor	cycle	Motor	cycle	Total			
	Drivers	<b>Drivers Cited in</b>		<b>Drivers Cited in</b>		Cited in	Motorcycle			
	PDO C	rashes	Injury (	Crashes	Fatal C	rashes	Drivers Cited			
Violations	#	%	#	%	#	%	#	%		
Other Non-Moving Violations	8	24.2%	60	29.0%	0	0.0%	68	28.2%		
All Other Moving Violations	4	12.1%	31	15.0%	0	0.0%	35	14.5%		
Following Too Close	5	15.2%	18	8.7%	0	0.0%	23	9.5%		
Driving Under the Influence	1	3.0%	19	9.2%	0	0.0%	20	8.3%		
Improper Lookout	4	12.1%	11	5.3%	0	0.0%	15	6.2%		
Speeding	2	6.1%	13	6.3%	0	0.0%	15	6.2%		
Reckless Driving	2	6.1%	12	5.8%	1	0.0%	15	6.2%		
Failure to Yield Right-of-Way	1	3.0%	10	4.8%	0	0.0%	11	4.6%		
Improper Lane Change	1	3.0%	9	4.3%	0	0.0%	10	4.1%		
Negligent Collision	3	9.1%	5	2.4%	0	0.0%	8	3.3%		
Improper Turn (Failure to Signal)	1	3.0%	5	2.4%	0	0.0%	6	2.5%		
Improper Passing	0	0.0%	5	2.4%	0	0.0%	5	2.1%		
Hit and Run	0	0.0%	4	1.9%	0	0.0%	4	1.7%		
Wrong Side of Road	0	0.0%	3	1.4%	0	0.0%	3	1.2%		
Failure to Stop at Red Light	1	3.0%	1	0.5%	0	0.0%	2	0.8%		
Improper Start and Stop	0	0.0%	1	0.5%	0	0.0%	1	0.4%		
Total	33	100.0%	207	100.0%	1	0.0%	241	100.0%		

- In 2005, there were 962 motorcycle drivers involved in crashes. Officers at the scene of the crash cited 241 (25.1%) of those drivers for a traffic violation.
- Excluding "other non-moving" and "other moving" violations, motorcycle drivers were cited most often for "following too close" (9.5%) and "driving under the influence" (8.3%).

#### **Contributing Factors of Motorcycle Crashes (Utah 2005)**

Contributing Factors (Vehicles Involved in Motorcycle Crashes)										
	Cont	ributing F	actors (	Coded fo	r Ve	hicles In	volved	in:		
	Motor	cycle	Moto	rcycle	Mot	orcycle	Total			
	Property	Damage	lnj	ury	F	atal	Motorcycle			
	Only C	rashes	Cra	Crashes		ashes	Crashes			
Contributing Factors	#	%	#	%	#	%	#	%		
Speed Too Fast	12	15.2%	157	22.7%	13	40.6%	182	22.7%		
Other Improper Driving	9	11.4%	139	20.1%	4	12.5%	152	19.0%		
Improper Lookout	17	21.5%	95	13.7%	1	3.1%	113	14.1%		
Followed Too Closely	10	12.7%	55	8.0%	0	0.0%	65	8.1%		
Object in Roadway	2	2.5%	29	4.2%	1	3.1%	32	4.0%		
Failed to Yield Right of Way	4	5.1%	24	3.5%	0	0.0%	28	3.5%		
Improper Overtaking	2	2.5%	20	2.9%	1	3.1%	23	2.9%		
Drove Left of Center	3	3.8%	16	2.3%	2	6.3%	21	2.6%		
Driving Under the Influence	0	0.0%	18	2.6%	0	0.0%	18	2.2%		
Made Improper Turn	2	2.5%	15	2.2%	1	3.1%	18	2.2%		
Non-Contact Vehicle Involved	1	1.3%	16	2.3%	0	0.0%	17	2.1%		
Other Driver Distractions	2	2.5%	12	1.7%	1	3.1%	15	1.9%		
Aggressive Driving	2	2.5%	11	1.6%	1	3.1%	14	1.7%		
Had Been Drinking	1	1.3%	11	1.6%	1	3.1%	13	1.6%		
Hit and Run	6	7.6%	7	1.0%	0	0.0%	13	1.6%		
Other Defective Condition of Vehicle	1	1.3%	11	1.6%	0	0.0%	12	1.5%		
Tires Defective	0	0.0%	11	1.6%	1	3.1%	12	1.5%		
Disregard Traffic Signal	2	2.5%	6	0.9%	1	3.1%	9	1.1%		
Wrong Side of Road	0	0.0%	7	1.0%	1	3.1%	8	1.0%		
Fatigued	0	0.0%	7	1.0%	1	3.1%	8	1.0%		
Passed Stop Sign	0	0.0%	5	0.7%	1	3.1%	6	0.7%		
Asleep	0	0.0%	4	0.6%	1	3.1%	5	0.6%		
Headlights Insufficient or Out	0	0.0%	5	0.7%	0	0.0%	5	0.6%		
Brakes Defective	0	0.0%	3	0.4%	0	0.0%	3	0.4%		
Sick or III	1	1.3%	1	0.1%	0	0.0%	2	0.2%		
Stolen	1	1.3%	1	0.1%	0	0.0%	2	0.2%		
Improper Backing	0	0.0%	1	0.1%	0	0.0%	1	0.1%		
Failed to Signal	0	0.0%	1	0.1%	0	0.0%	1	0.1%		
Other Lights or Reflectors Defective	0	0.0%	1	0.1%	0	0.0%	1	0.1%		
Downhill Runaway	0	0.0%	1	0.1%	0	0.0%	1	0.1%		
Explosion or Fire	1	1.3%	0	0.0%	0	0.0%	1	0.1%		
Vehicle Rolling in Traffic Lane	0	0.0%	1	0.1%	0	0.0%	1	0.1%		
Total	79	100.0%	691	100.0%	32	100.0%	802	100.0%		

- Contributing factors were coded by the police officer at the scene of the crash for each vehicle involved in the
  crash. The officer may record no contributing factor or up to two different contributing factors.
- "Speed too fast" was the leading contributing factor for total motorcycle crashes (22.7%), motorcycle injury crashes (22.7%) and fatal motorcycle crashes (40.6%).
- The combined contributing factors of "driving under the influence," "had been drinking" and "under the influence of drugs" accounted for 3.8% of total motorcycle crashes, 4.2% of motorcycle injury crashes, and 3.1% of fatal motorcycle crashes.